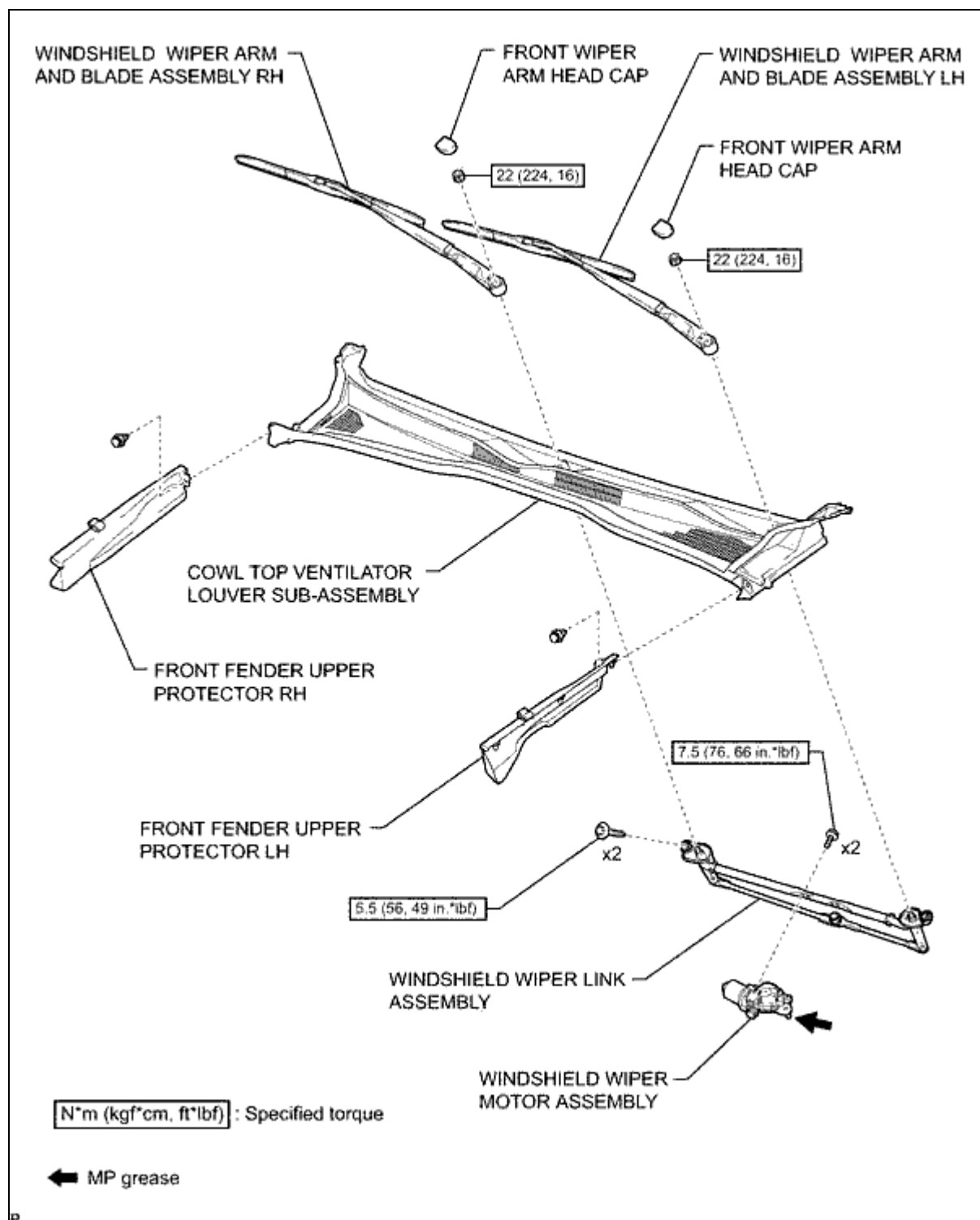


Last Modified: 11-13-2015	6.6 K	Doc ID: RM0000016YP00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER MOTOR: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



Last Modified: 11-13-2015	6.6 G	Doc ID: RM0000016Y000AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER MOTOR: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

1. INSPECT WINDSHIELD WIPER MOTOR ASSEMBLY

- (a) Check the LO operation.

Text in Illustration

*a	Component without harness connected (Windshield Wiper Motor Assembly)
----	--

- (1) Apply battery voltage to the windshield wiper motor connector and check the speed of the windshield wiper motor assembly.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 1 (+1) Battery negative (-) → Terminal 5 (E)	Motor operates at low speed

If the result is not as specified, replace the windshield wiper motor assembly.

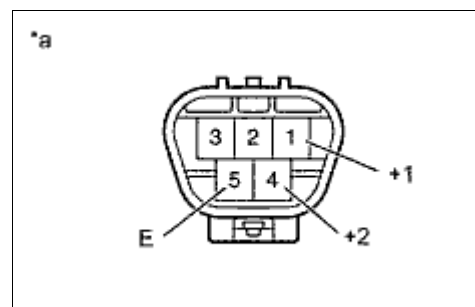
- (b) Check the HI operation.

- (1) Apply battery voltage to the windshield wiper motor connector and check the speed of the windshield wiper motor assembly.

OK:

MEASUREMENT CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 4 (+2) Battery negative (-) → Terminal 5 (E)	Motor operates at high speed

If the result is not as specified, replace the windshield wiper motor assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016YN00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER MOTOR: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

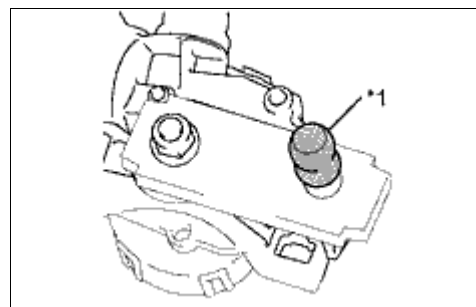
INSTALLATION

1. INSTALL WINDSHIELD WIPER MOTOR ASSEMBLY

- (a) Apply MP grease to the crank arm pivot of the windshield wiper motor assembly.

Text in Illustration

*1	Crank Arm Pivot
----	-----------------

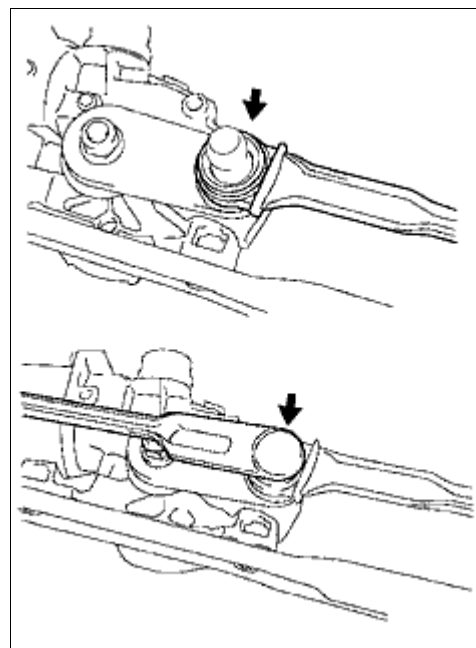


- (b) Using a T30 "TORX" socket wrench, install the front wiper motor assembly with the 2 bolts.

Torque:

7.5 N·m {76 kgf·cm, 66in·lbf}

- (c) Install the 2 rods to the crank arm pivot of the windshield wiper motor assembly.

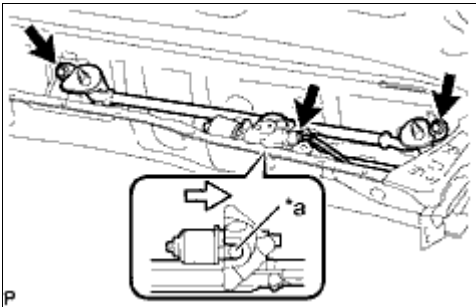


2. INSTALL WINDSHIELD WIPER MOTOR AND LINK

- (a) Engage the motor grommet and temporarily install the windshield wiper motor and link as shown in the illustration.

Text in Illustration

*a	Motor Grommet
----	---------------



- (b) Install the windshield wiper motor and link with the 2 bolts.

Torque:

5.5 N·m {56 kgf·cm, 49in·lbf}

- (c) Connect the connector.

3. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

- (a) Engage the 9 guides to install the cowl top ventilator louver sub-assembly.
(b) Engage the guide and 6 claws.

4. INSTALL FRONT FENDER UPPER PROTECTOR LH

- (a) Engage the 3 clips to install the front fender upper protector LH.
(b) Install the clip.

5. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

6. INSTALL WINDSHIELD WIPER ARM AND BLADE ASSEMBLY LH

- (a) When reusing the windshield wiper arm and blade assembly LH:

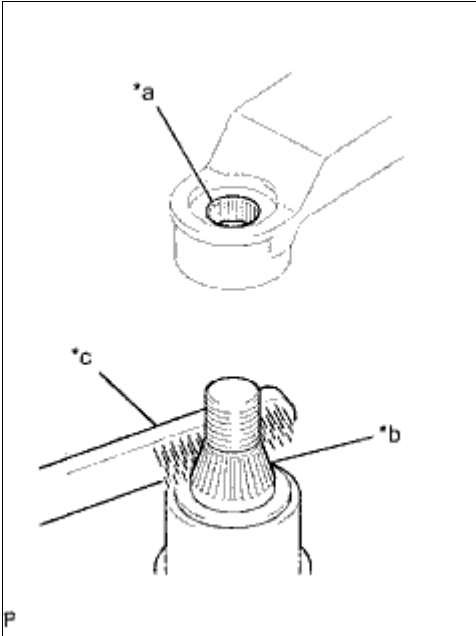
- (1) Clean the wiper arm serrations to remove any burrs, dirt, etc.

Text in Illustration

*a	Wiper Arm Serration
*b	Wiper Pivot Serration
*c	Wire Brush

NOTICE:

Do not grind down the wiper arm serrations.



- (2) Clean the wiper pivot serrations with a wire brush.

NOTICE:

Do not grind down the wiper pivot serrations.

(3) Operate the front wiper motor and then stop the front wiper motor in the automatic stop (park) position.

(b) Install the windshield wiper arm and blade assembly LH to the position with the nut as shown in the illustration.

Torque:

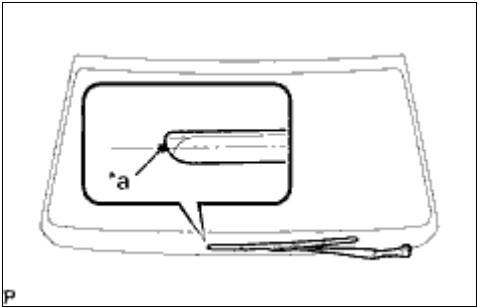
22 N·m {224 kgf·cm, 16ft·lbf}

Text in Illustration

*a	Matchmark
----	-----------

HINT:

Hold the windshield wiper arm and blade assembly LH by hand while tightening the nut.



(c) Operate the front wipers while spraying washer fluid on the windshield glass. Make sure that the front wipers function properly and there is no interference with the vehicle body.

(d) Check the automatic stop (park) position after lifting the wiper blade 2 times as shown in the illustration.

7. INSTALL WINDSHIELD WIPER ARM AND BLADE ASSEMBLY RH

(a) When reusing the windshield wiper arm and blade assembly RH:

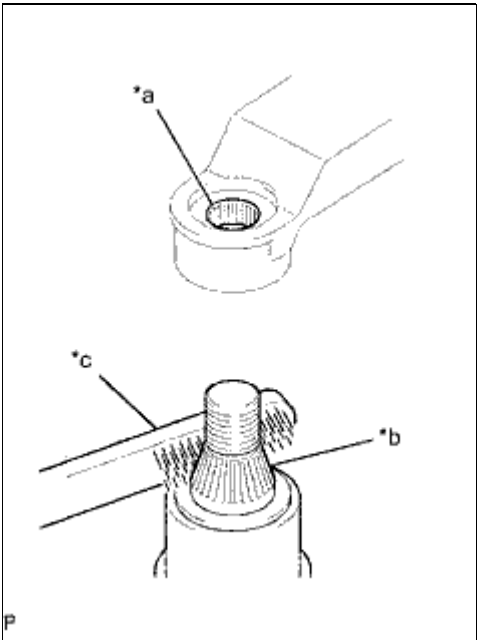
(1) Clean the wiper arm serrations to remove any burrs, dirt, etc.

Text in Illustration

*a	Wiper Arm Serration
*b	Wiper Pivot Serration
*c	Wire Brush

NOTICE:

Do not grind down the wiper arm serrations.



(2) Clean the wiper pivot serrations with a wire brush.

NOTICE:

Do not grind down the wiper pivot serrations.

(3) Operate the front wiper motor and then stop the front wiper motor in the automatic stop (park) position.

- (b) Install the windshield wiper arm and blade assembly RH to the position with the nut as shown in the illustration.

Torque:

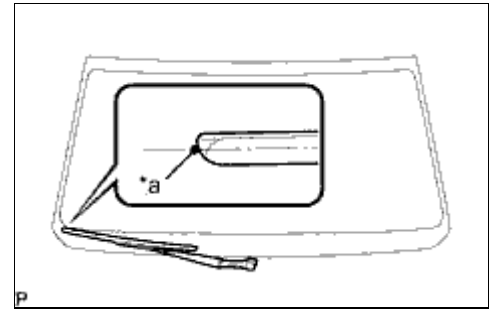
22 N·m {224 kgf·cm, 16ft·lbf}

Text in Illustration

*a	Matchmark
----	-----------

HINT:

Hold the windshield wiper arm and blade assembly RH by hand while tightening the nut.



- (c) Operate the front wipers while spraying washer fluid on the windshield glass. Make sure that the front wipers function properly and there is no interference with the vehicle body.
- (d) Check the automatic stop (park) position after lifting the wiper blade 2 times as shown in the illustration.

8. INSTALL FRONT WIPER ARM HEAD CAP

- (a) Engage the 3 claws to install the front wiper arm head cap.

HINT:

Use the same procedure for both sides.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER MOTOR: ON-VEHICLE INSPECTION; 2016 MY Tacoma [08/2015 -]		

ON-VEHICLE INSPECTION

1. INSPECT FRONT WIPER MOTOR (for Driver Side)

Text in Illustration

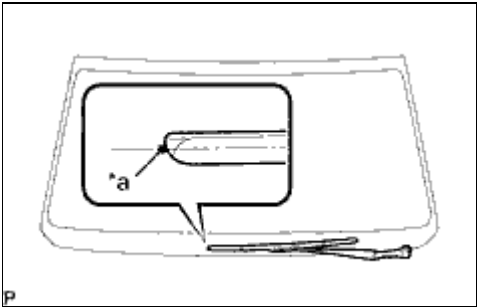
*a	Matchmark
----	-----------

- (a) Check the stop (park) position.
- (b) Operate the windshield wiper motor assembly.
- (c) Stop the windshield wiper motor assembly operation.
- (d) Check the automatic stop (park) position.

HINT:

After the front wiper motor is stopped, check the automatic stop position after lifting the wiper blade 2 times.

OK:
The front wiper stops at the position shown in the illustration.



2. INSPECT FRONT WIPER MOTOR (for Front Passenger Side)

Text in Illustration

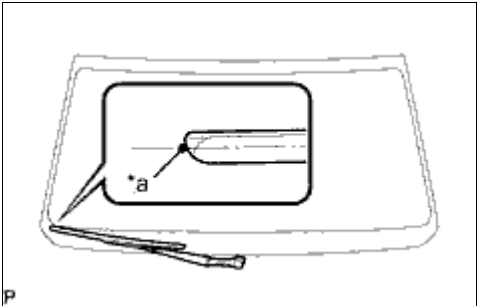
*a	Matchmark
----	-----------

- (a) Check the stop (park) position.
- (b) Operate the windshield wiper motor assembly.
- (c) Stop the windshield wiper motor assembly operation.
- (d) Check the automatic stop (park) position.

HINT:

After the front wiper motor is stopped, check the automatic stop position after lifting the wiper blade 2 times.

OK:
The front wiper stops at the position shown in the illustration.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER MOTOR: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

1. REMOVE FRONT WIPER ARM HEAD CAP

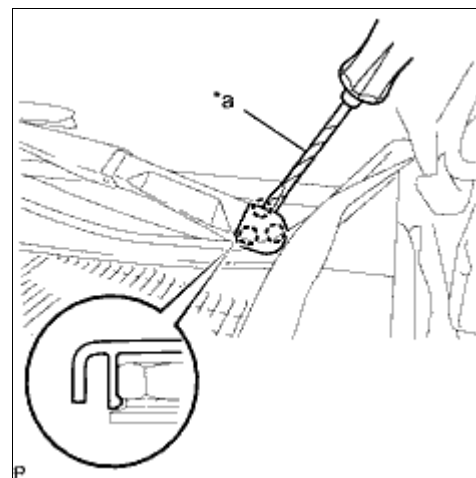
- (a) Using a screwdriver with its tip wrapped in protective tape, disengage the 3 claws to remove the front wiper arm head cap.

Text in Illustration

*a	Protective Tape
----	-----------------

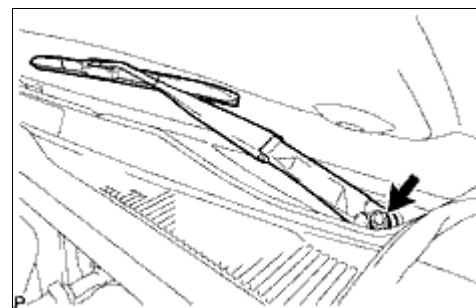
HINT:

Use the same procedure for both sides.



2. REMOVE WINDSHIELD WIPER ARM AND BLADE ASSEMBLY LH

- (a) Remove the nut and windshield wiper arm and blade assembly LH.



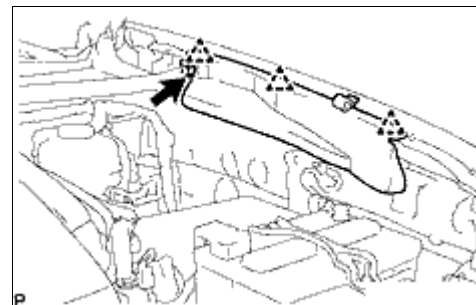
3. REMOVE WINDSHIELD WIPER ARM AND BLADE ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT FENDER UPPER PROTECTOR LH

- (a) Remove the clip.



(b) Disengage the 3 clips to remove the front fender upper protector LH.

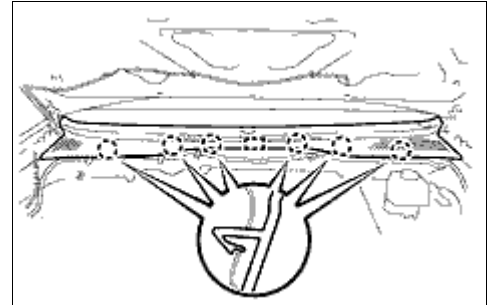
5. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

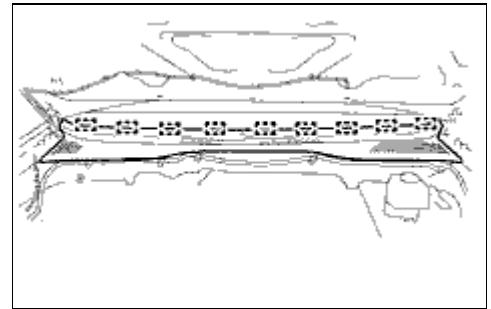
Use the same procedure as for the LH side.

6. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

(a) Disengage the 6 claws and guide.



(b) Disengage the 9 guides to remove the cowl top ventilator louver sub-assembly.

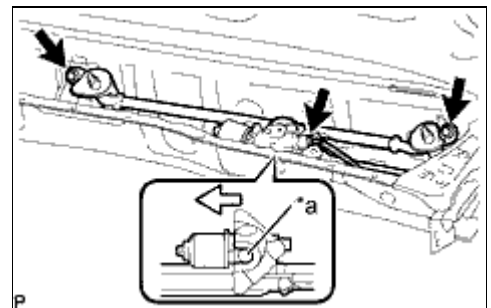


7. REMOVE WINDSHIELD WIPER MOTOR AND LINK

(a) Disconnect the connector.

Text in Illustration

*a	Motor Grommet
----	---------------



(b) Remove the 2 bolts.

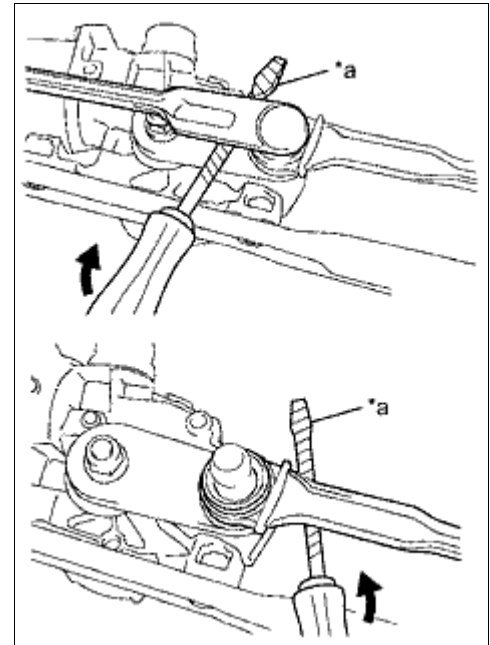
(c) Disengage the motor grommet as shown in the illustration to remove the windshield wiper motor and link.

8. REMOVE WINDSHIELD WIPER MOTOR ASSEMBLY

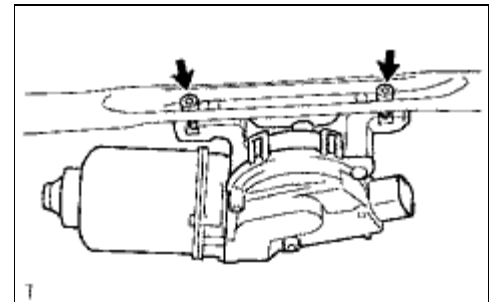
- (a) Using a screwdriver with its tip wrapped in protective tape, disengage the 2 rods at the crank arm pivot of the windshield wiper motor assembly.

Text in Illustration

*a	Protective Tape
----	-----------------



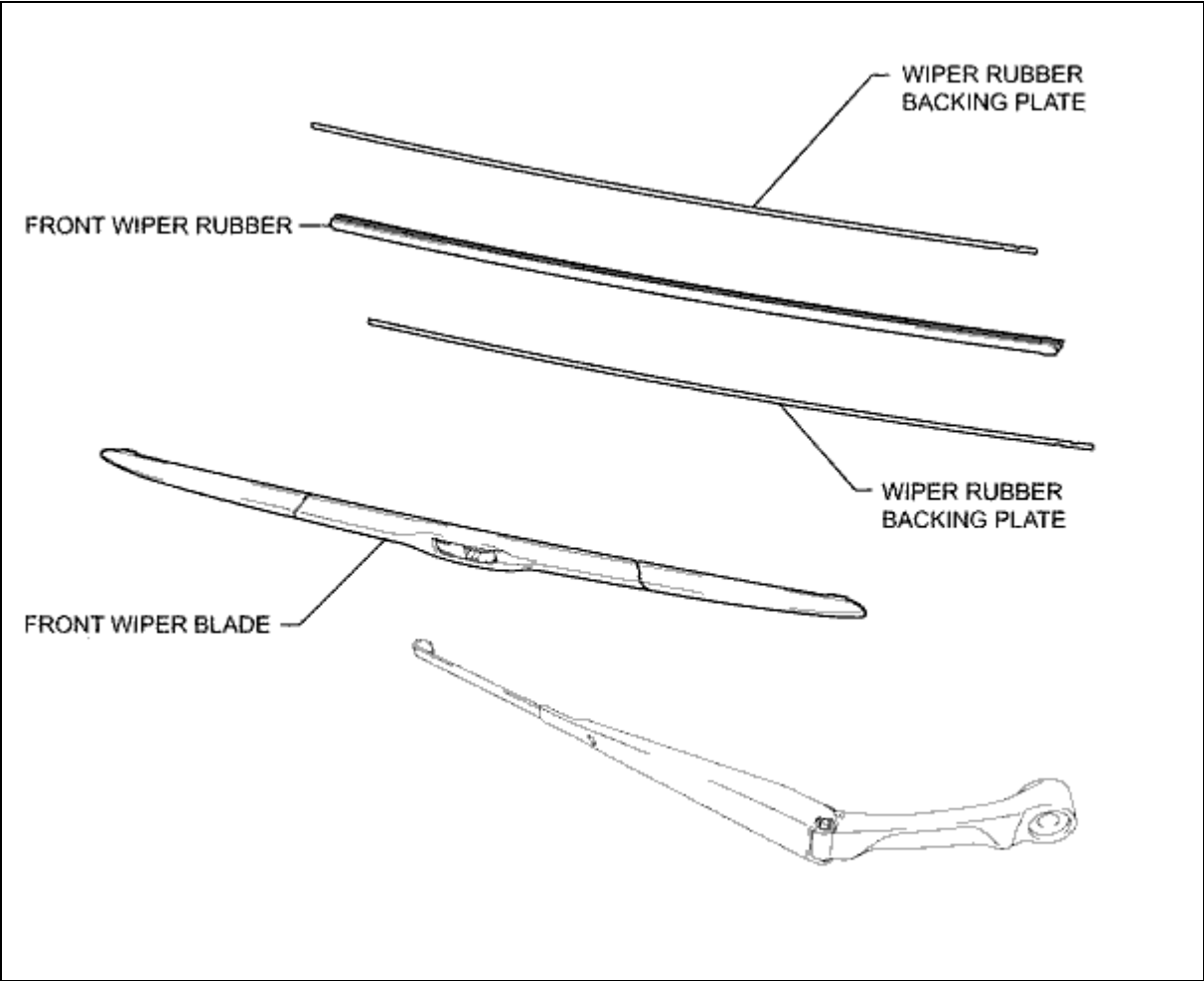
- (b) Using a T30 "TORX" socket wrench, remove the 2 bolts and windshield wiper motor assembly.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER RUBBER: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016YW00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER RUBBER: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

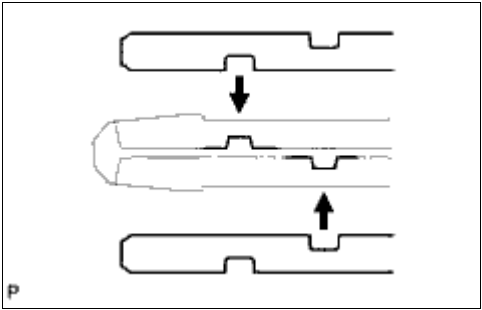
INSTALLATION

1. INSTALL FRONT WIPER RUBBER

- (a) Install the 2 wiper rubber backing plates to the front wiper rubber.

NOTICE:

- Align the groove of the front wiper rubber backing plate with the edge of the wiper rubber.
- Make sure that the front wiper rubber backing plate is perpendicular to the glass.



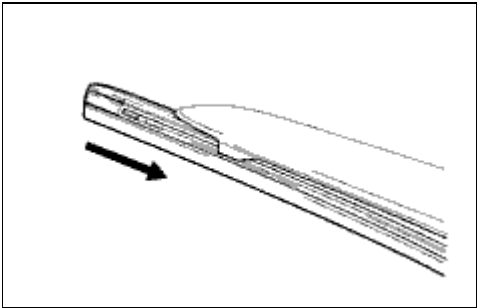
- (b) Install the front wiper rubber together with the 2 front wiper rubber backing plates to the front wiper blade.

NOTICE:

Push the front wiper blade into the grooves of the wiper rubber to engage them completely.

HINT:

Install the wiper rubber LH so that the head part (large side) of the wiper rubber faces the arm axis side.

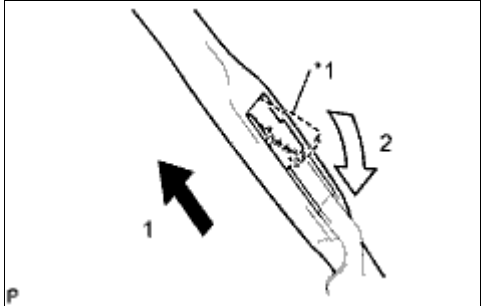


2. INSTALL FRONT WIPER BLADE

- (a) Install the front wiper blade to the front wiper arm as shown in the illustration.

Text in Illustration

*1	Holder
----	--------



- (b) Install the holder of the front wiper blade as shown in the illustration.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: FRONT WIPER RUBBER: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

NOTICE:

Make sure to hold the front wiper arm while lifting it as lifting the front wiper arm by the front wiper blade may damage or deform the front wiper blade

HINT:

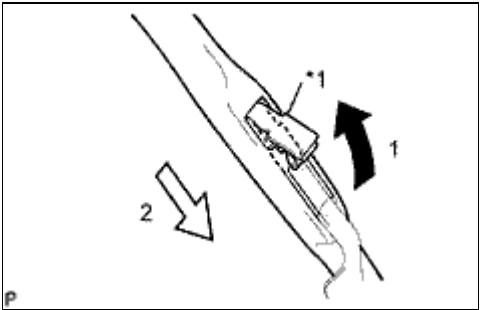
- The following procedure is for the LH side.
- Use the same procedure for the RH side and LH side.

1. REMOVE FRONT WIPER BLADE

(a) Remove the holder of the front wiper blade as shown in the illustration.

Text in Illustration

*1	Holder
----	--------



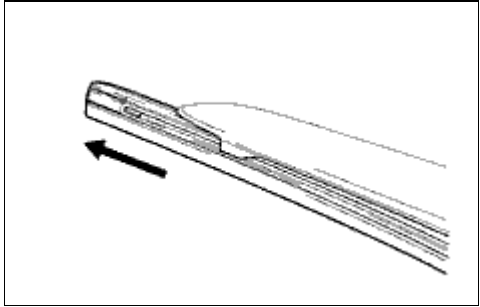
(b) Remove the front wiper blade from the front wiper arm as shown in the illustration.

NOTICE:

Do not lower the front wiper arm with the front wiper blade removed. The arm tip may damage the windshield surface.

2. REMOVE FRONT WIPER RUBBER

(a) Remove the front wiper rubber with wiper rubber backing plates from the front wiper blade.



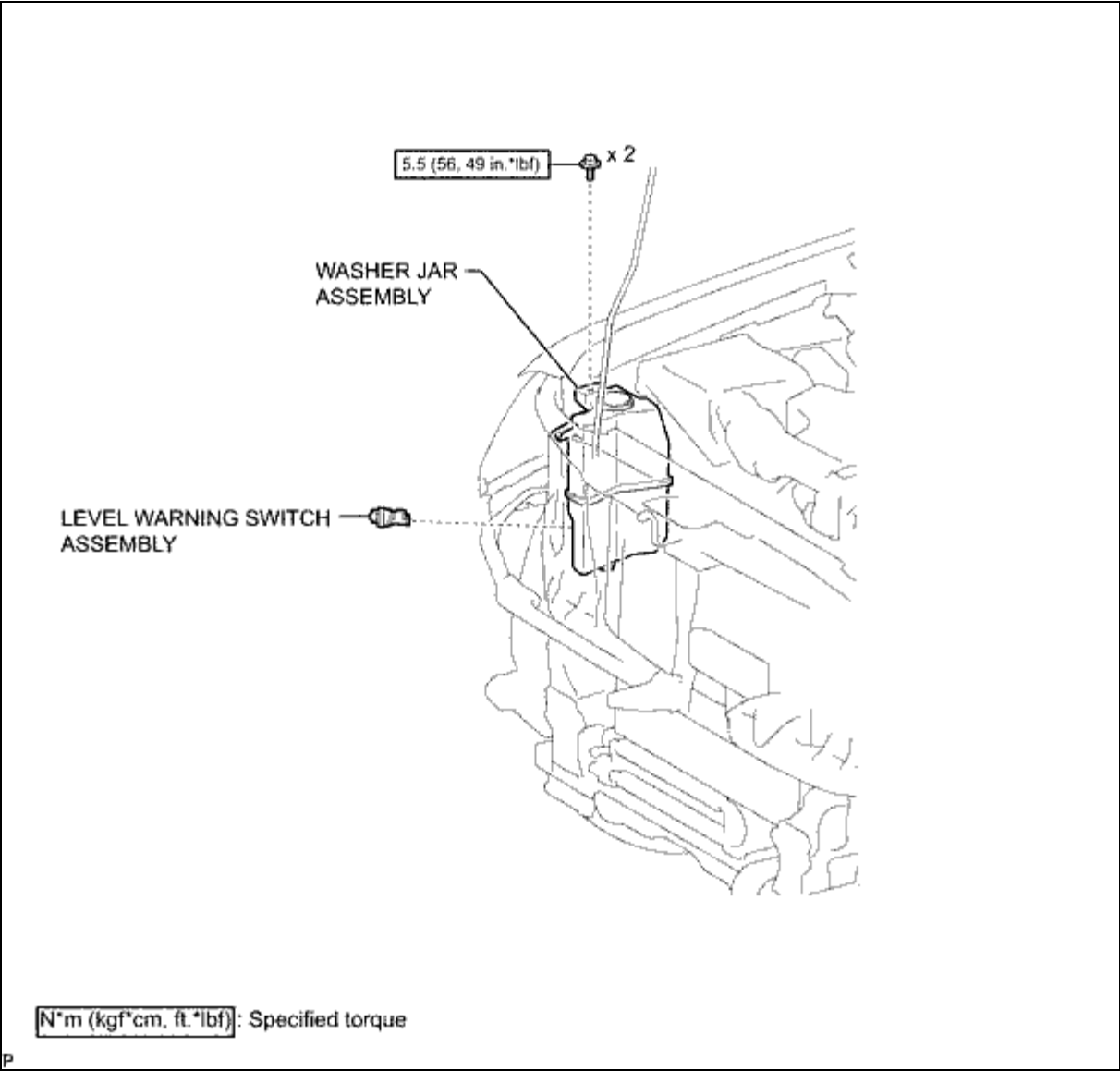
(b) Remove the 2 wiper rubber backing plates from the front wiper rubber.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER LEVEL WARNING SWITCH: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



Last Modified: 11-13-2015	6.6 G	Doc ID: RM000001P2X082X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER LEVEL WARNING SWITCH: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

1. INSPECT LEVEL WARNING SWITCH ASSEMBLY

HINT:

This check should be performed with the windshield washer motor and pump assembly installed on the washer jar.

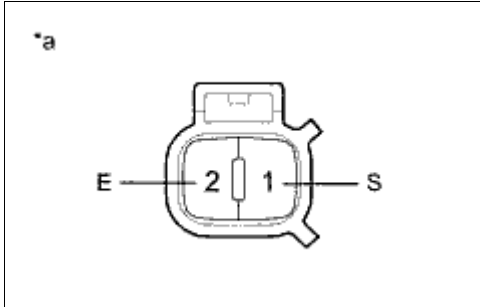
- (a) Fill the washer jar with washer fluid.
- (b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 (S) - 2 (E)	Fluid volume is 600 to 800 cc (36.6 to 48.8 cu.in.) or higher*	10 kΩ or higher
	Fluid volume is 600 to 800 cc (36.6 to 48.8 cu.in.) or lower*	Below 1 Ω

HINT:

*: The level warning switch assembly begins operating when the fluid volume is 600 to 800 cc (36.6 to 48.8 cu.in.) depending on the vehicle condition.



Text in Illustration

*a	Component without harness connected (Level Warning Switch Assembly)
----	--

If the result is not as specified, replace the level warning switch assembly.

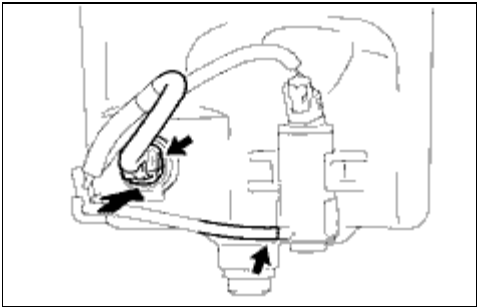


Last Modified: 11-13-2015	6.6 A	Doc ID: RM000001P4308QX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER LEVEL WARNING SWITCH: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL LEVEL WARNING SWITCH ASSEMBLY

(a) Install the level warning switch assembly.



(b) Connect the connector.

(c) Connect the washer hose to the windshield washer motor and pump assembly.

2. INSTALL WASHER JAR ASSEMBLY INFO

3. ADD WASHER FLUID INFO

4. INSTALL HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side. INFO



Last Modified: 11-13-2015	6.6 A	Doc ID: RM000001P4508QX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER LEVEL WARNING SWITCH: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

1. REMOVE HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

INFO

2. SEPARATE WASHER JAR ASSEMBLY

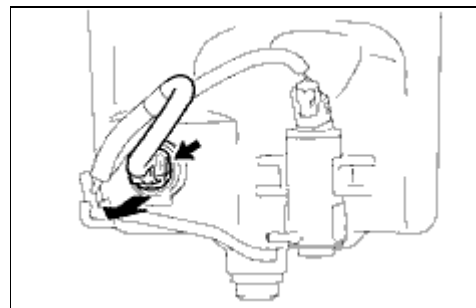
INFO

3. DRAIN WINDSHIELD WASHER FLUID

INFO

4. REMOVE LEVEL WARNING SWITCH ASSEMBLY

(a) Disconnect the connector.



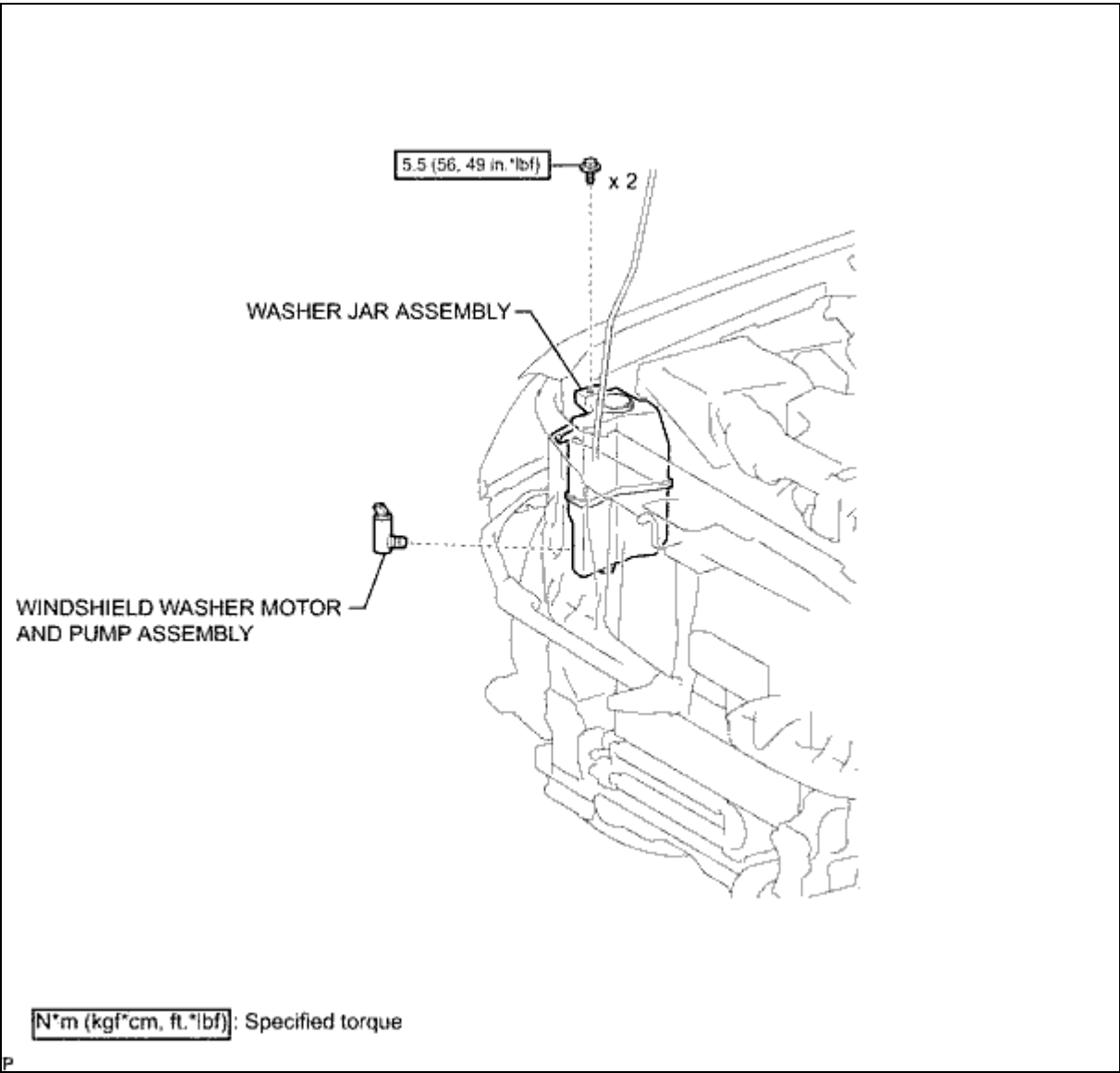
(b) Remove the level warning switch assembly as shown in the illustration.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER MOTOR: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION

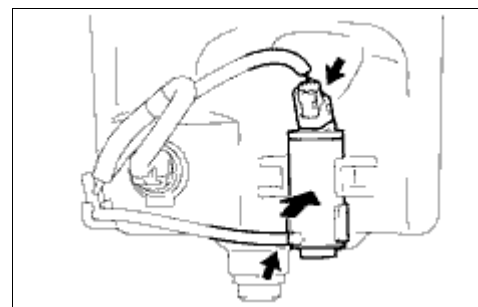


Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000034YI06KX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER MOTOR: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY

- (a) Install the windshield washer motor and pump assembly.



- (b) Connect the washer hose.

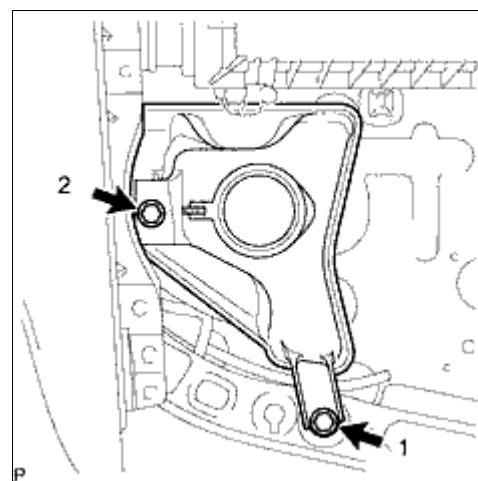
- (c) Connect the connector.

2. INSTALL WASHER JAR ASSEMBLY

- (a) Install the windshield washer jar assembly with the 2 bolts in the order shown in the illustration.

Torque:

5.5 N·m {56 kgf·cm, 49in·lbf}



3. ADD WASHER FLUID

- (a) Add washer fluid to the washer jar assembly.

4. INSTALL HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

INFO



Last Modified: 11-13-2015	6.6 G	Doc ID: RM0000016YM00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER MOTOR: ON-VEHICLE INSPECTION; 2016 MY Tacoma [08/2015 -]		

ON-VEHICLE INSPECTION

1. INSPECT WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY

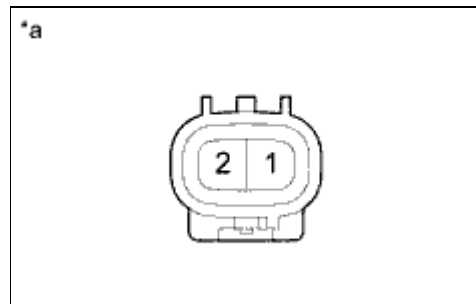
HINT:

This check should be performed with the windshield washer motor and pump assembly installed to the windshield washer jar assembly.

- (a) With the windshield washer motor and pump assembly installed to the washer jar, pour windshield washer fluid into the washer jar.

Text in Illustration

*a	Component without harness connected (Windshield Washer Motor and Pump Assembly)
----	---



- (b) Check that the windshield washer fluid is pumped when battery voltage is applied to the terminals.

:

CONDITION	SPECIFIED CONDITION
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Washer fluid is pumped

If the result is not as specified, replace the windshield washer motor and pump assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000034YK06LX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER MOTOR: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

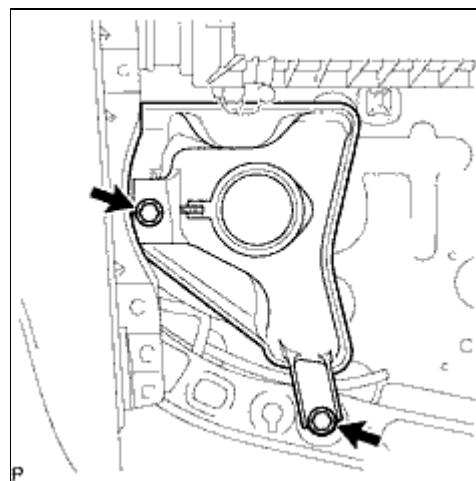
1. REMOVE HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side [INFO](#) .

2. SEPARATE WASHER JAR ASSEMBLY

- (a) Remove the 2 bolts to separate the washer jar assembly from the vehicle body.

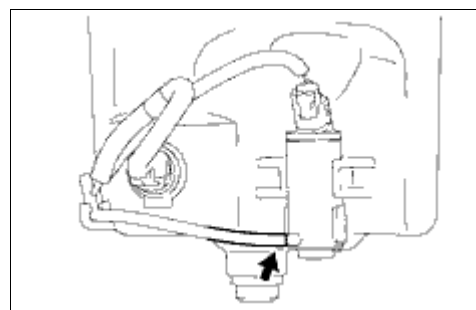


3. DRAIN WINDSHIELD WASHER FLUID

- (a) Disconnect the washer hose from the windshield washer motor and pump assembly, and drain the windshield washer fluid.

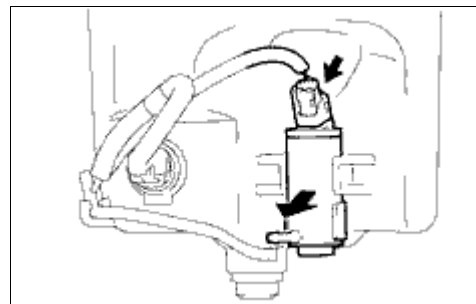
HINT:

Use a container to collect the washer fluid.



4. REMOVE WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY

- (a) Disconnect the connector.



(b) Remove the windshield washer motor and pump assembly as shown in the illustration.



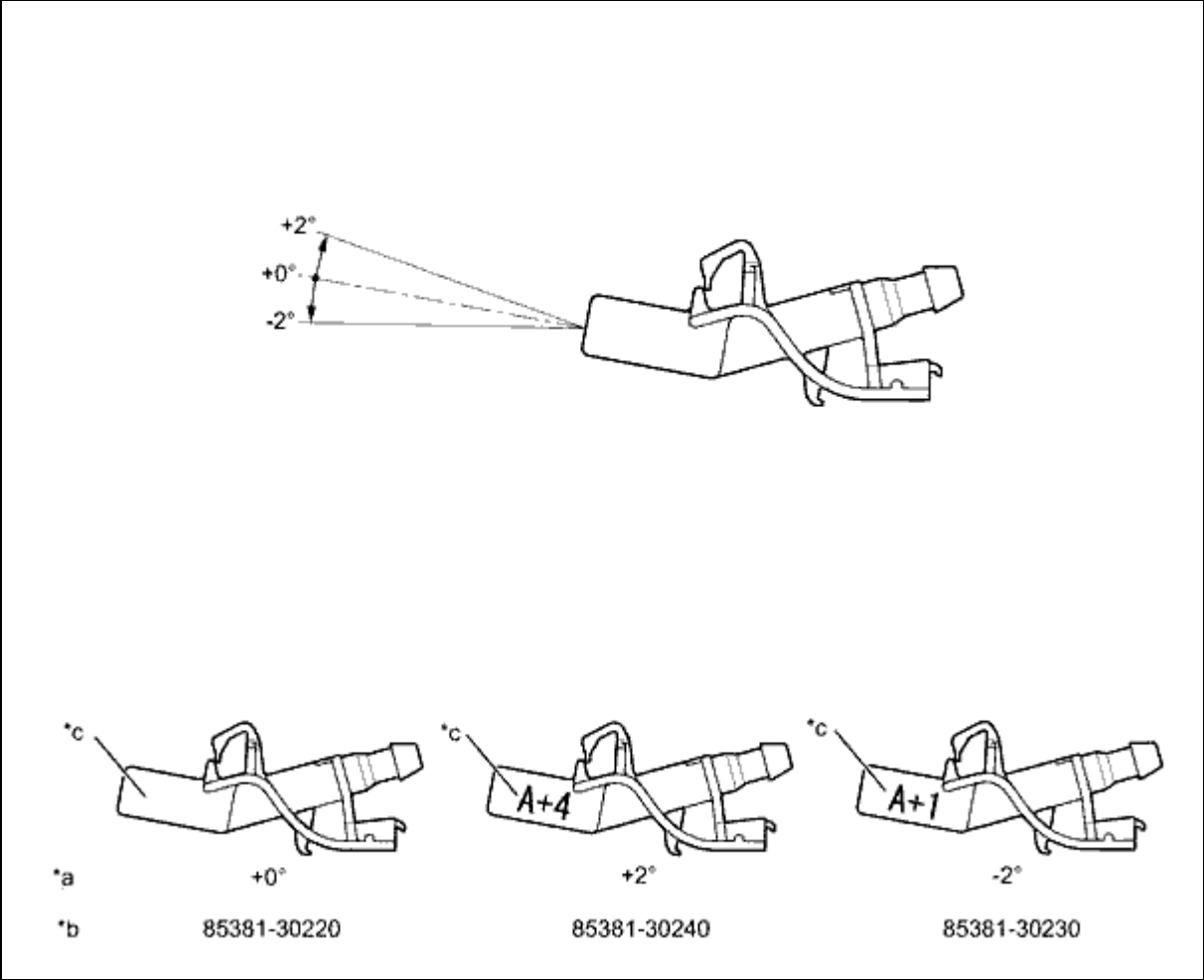
Last Modified: 11-13-2015	6.6 N	Doc ID: RM000001OUQ05AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER NOZZLE: ADJUSTMENT; 2016 MY Tacoma [08/2015 -]		

ADJUSTMENT

1. REMOVE WASHER NOZZLE SUB-ASSEMBLY INFO

2. ADJUST WASHER NOZZLE SUB-ASSEMBLY

- (a) Select a washer nozzle so that the contact area is within the standard. Replace the washer nozzle with the selected one.



Text in Illustration

*a	Washer Fluid Spray Angle	*b	Part Number
*c	Identification Mark	-	-

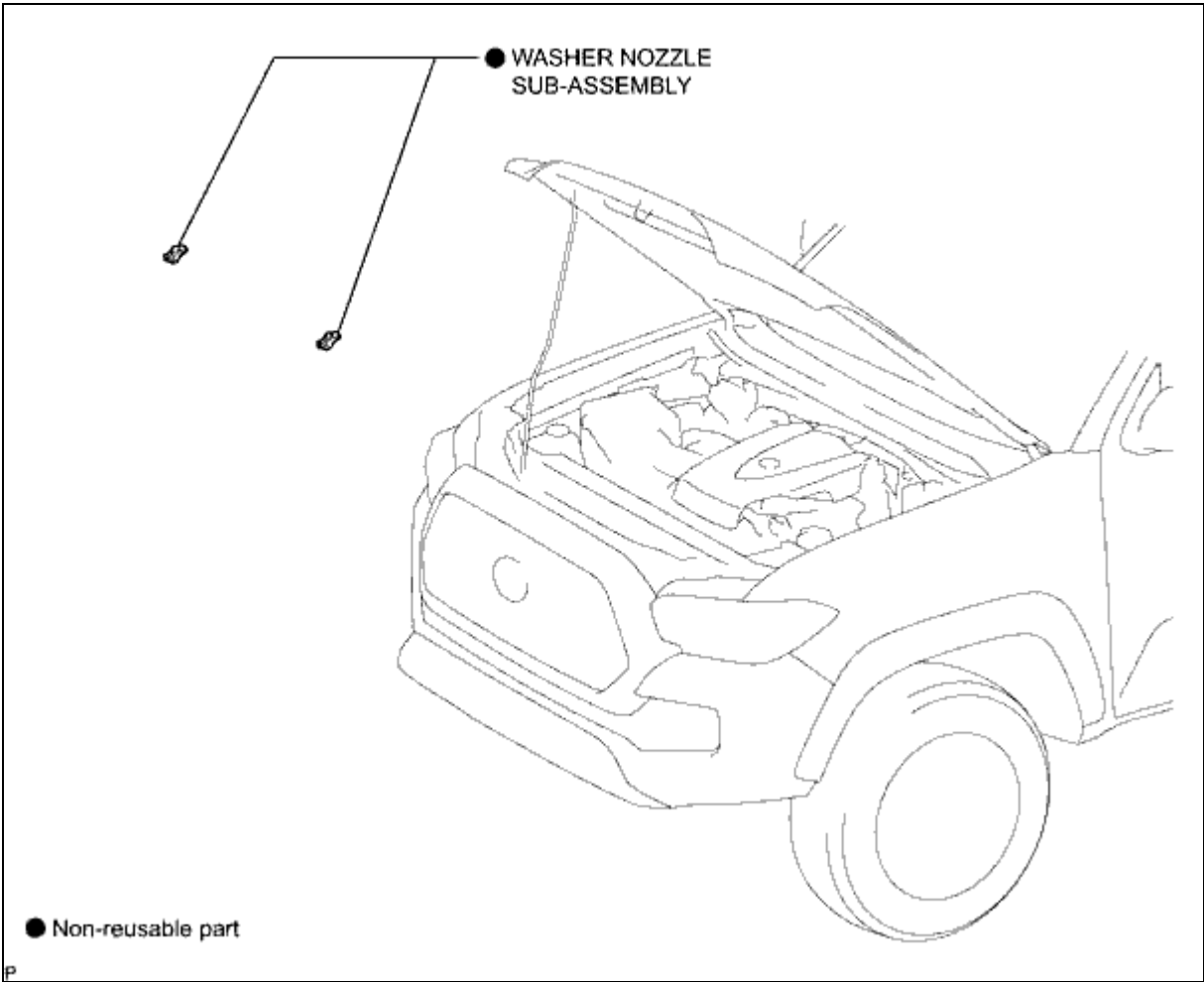
3. INSTALL WASHER NOZZLE SUB-ASSEMBLY INFO



Last Modified: 11-13-2015	6.6 K	Doc ID: RM000003EWI04TX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER NOZZLE: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



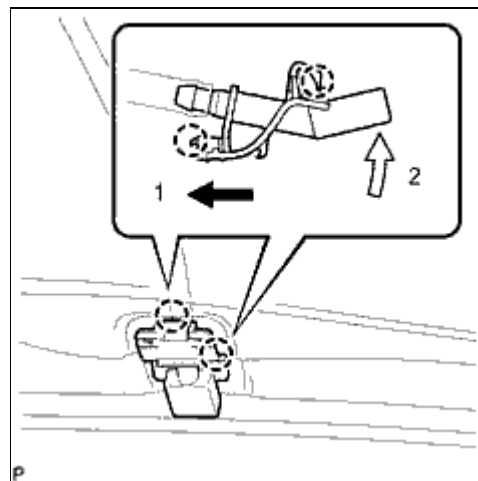
Last Modified: 11-13-2015	6.6 A	Doc ID: RM000003EWH04XX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER NOZZLE: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL WASHER NOZZLE SUB-ASSEMBLY

(a) Connect a new washer nozzle sub-assembly to the washer hose.

(b) Engage the 2 claws to install the washer nozzle sub-assembly as shown in the illustration.



2. INSPECT WASHER NOZZLE SUB-ASSEMBLY [INFO](#)

3. ADJUST WASHER NOZZLE SUB-ASSEMBLY [INFO](#)



Last Modified: 11-13-2015	6.6 G	Doc ID: RM000001OUR058X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER NOZZLE: ON-VEHICLE INSPECTION; 2016 MY Tacoma [08/2015 -]		

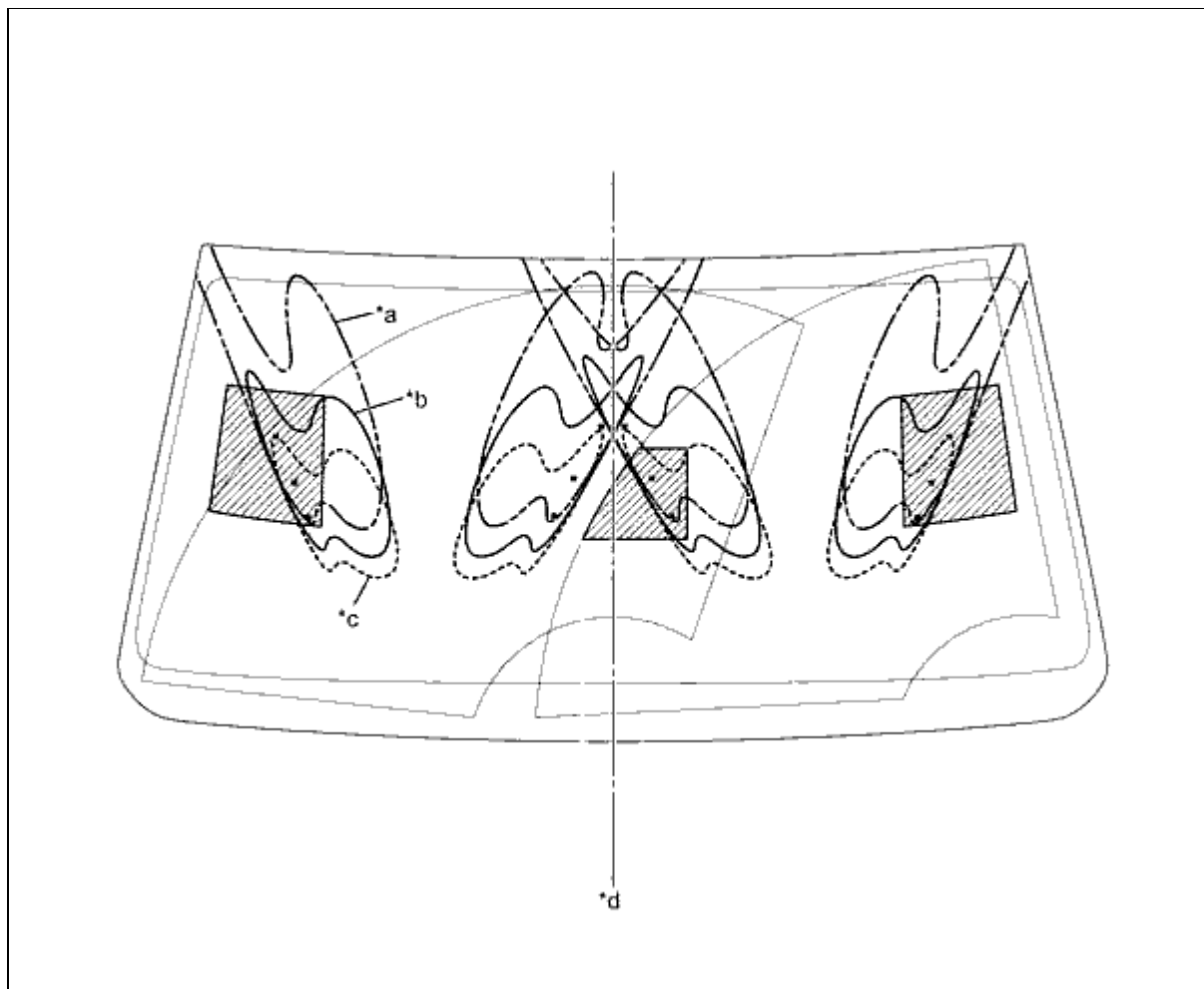
ON-VEHICLE INSPECTION

1. INSPECT WASHER NOZZLE SUB-ASSEMBLY

(a) Operate the washer nozzle sub-assembly and check the position that the washer fluid hits the windshield.

Standard:

Washer fluid hits the windshield glass in the areas shown in the illustration.



Text in Illustration

*a	Upper Limit	*b	Standard
*c	Lower Limit	*d	Vehicle center line
	Reference	-	-

HINT:

If the result is not as specified, replace the washer nozzle sub-assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM000003EWJ04VX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WASHER NOZZLE: REMOVAL; 2016 MY Tacoma [08/2015 -]		

REMOVAL

1. REMOVE WASHER NOZZLE SUB-ASSEMBLY

HINT:

Use the same procedure for both sides.

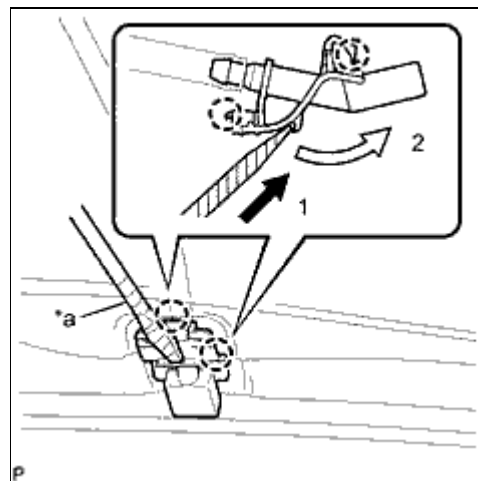
- (a) Using a screwdriver with its tip wrapped in protective tape, disengage the 2 claws to separate the washer nozzle sub-assembly as shown in the illustration.

Text in Illustration

*a	Protective Tape
----	-----------------

NOTICE:

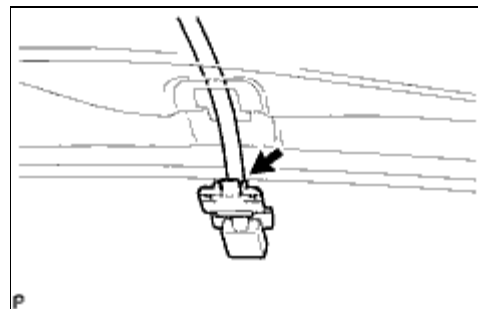
Do not damage the windshield glass.



- (b) Remove the washer nozzle sub-assembly from the washer hose.

NOTICE:

Washer nozzle sub-assembly cannot be reused.



Last Modified: 11-13-2015	6.6 D	Doc ID: RM000005V2U000X
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER AND WASHER SYSTEM: OPERATION CHECK; 2016 MY Tacoma [08/2015 -]		

OPERATION CHECK

1. CHECK INTERMITTENT CONTROL FUNCTION (w/ Intermittent Time Adjustment Switch)

- (a) Turn the ignition switch to ON.
- (b) Turn the windshield wiper switch assembly to the INT position.
- (c) Check that the intermittent operation interval can be adjusted from approximately 1.6 to 10.7 seconds by operating the intermittent timing switch.

2. CHECK WASHER-LINKED WIPER WITH DRIP-PREVENTION FUNCTION

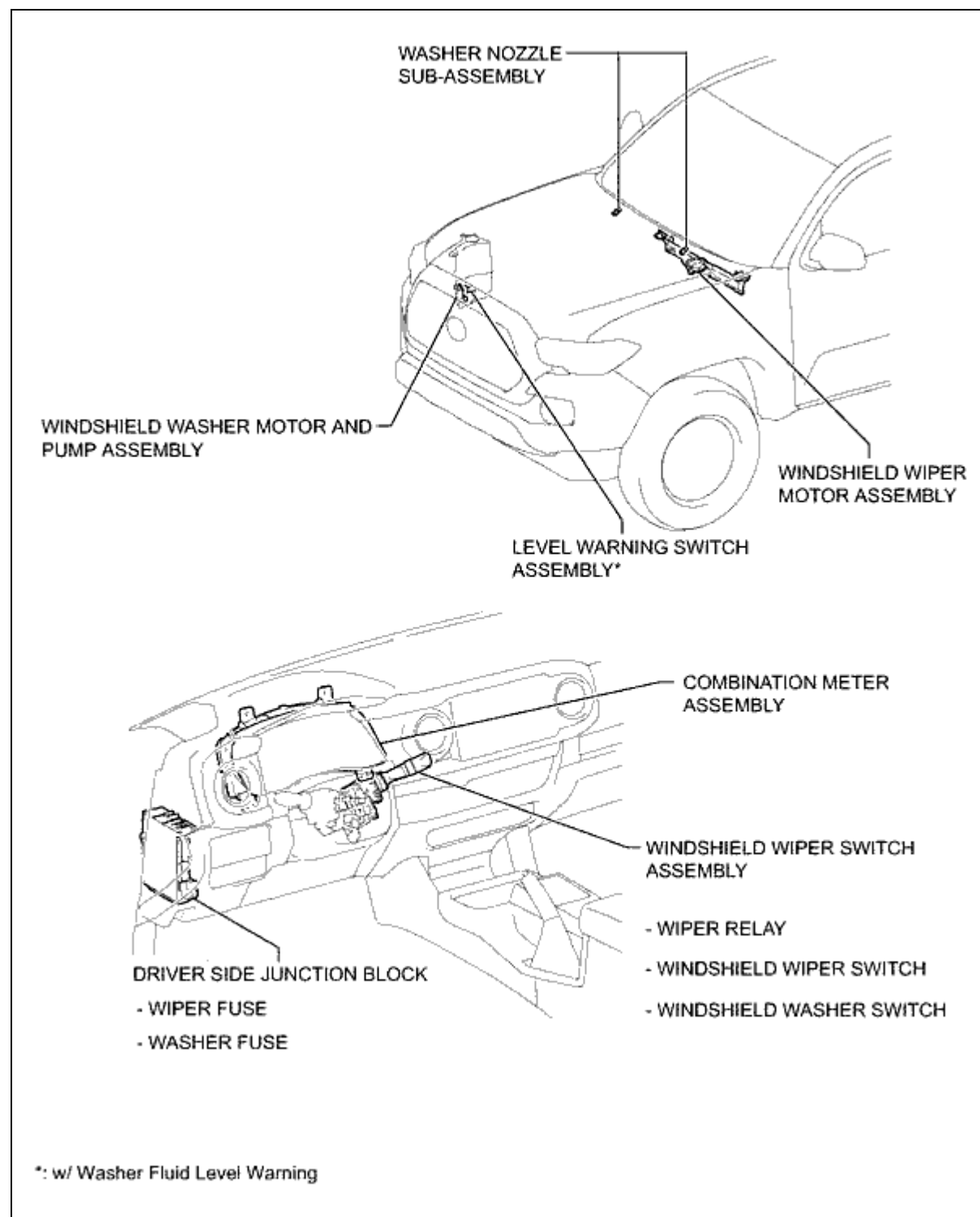
- (a) Turn the ignition switch to ON.
- (b) Turn the windshield wiper switch assembly to the off position.
- (c) Washer-linked Function:
 - (1) When the washer switch is turned on for approximately 2.2 seconds or more, washer fluid sprays and LO operation of the front wipers is performed simultaneously. After the washer switch is turned off, check that LO operation of the front wipers is performed 3 times.
- (d) Drip-prevention Function:
 - (1) With the vehicle stopped (below approximately 4 km/h [2.5 mph]) and the front wipers not operating after washer-linked operation completes, check that the front wipers operate once and wipe off the washer fluid after approximately 3 seconds elapse.



Last Modified: 11-13-2015	6.6 R	Doc ID: RM0000017EE00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER AND WASHER SYSTEM: PARTS LOCATION; 2016 MY Tacoma [08/2015 -]		

PARTS LOCATION

ILLUSTRATION





Last Modified: 11-13-2015	6.6 L	Doc ID: RM0000017CG00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER AND WASHER SYSTEM: PRECAUTION; 2016 MY Tacoma [08/2015 -]		

PRECAUTION

1. IGNITION SWITCH EXPRESSIONS

(a) The type of ignition switch used on this model differs depending on the specifications of the vehicle. The expressions listed in the table below are used in this section.

EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	LOCK	Off (Lock)
Ignition Switch ACC	ACC	On (ACC)
Ignition Switch ON	ON (IG)	On (IG)
Engine Start	START	On (Start)

2. PRECAUTION OF WASHER NOZZLE ADJUSTMENT

(a) Do not clean or adjust the washer nozzle with sharp metal objects, such as safety pins because:

- (1) the washer nozzle tip is made of resin and could be damaged.
- (2) adjustment is not necessary because it has a spray type nozzle.

(b) If the washer nozzle is clogged with materials such as wax, remove the objects and clean the nozzle hole with a soft resin brush, etc.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER AND WASHER SYSTEM: PROBLEM SYMPTOMS TABLE; 2016 MY Tacoma [08/2015 -]		

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

Front Wiper and Washer System

SYMPTOM	SUSPECTED AREA	LINK
Front wipers do not operate at all	Windshield wiper switch assembly	INFO
	Windshield wiper motor assembly	INFO
Front wiper system does not operate in LO or MIST	Windshield wiper switch assembly	INFO
	Windshield wiper motor assembly	INFO
Front wiper system does not operate in HI	Windshield wiper switch assembly	INFO
	Windshield wiper motor assembly	INFO
Front washer system does not operate	Windshield washer motor and pump assembly	INFO
	Windshield wiper switch assembly	INFO
	Harness or connector	-
Front wipers do not operate when the washer fluid is sprayed with the windshield washer switch on	Windshield wiper switch assembly	INFO
	Harness or connector	-
Washer fluid does not flow	Washer fluid	-
	Washer hose and washer nozzle sub-assembly	INFO

Washer Fluid Level Warning System

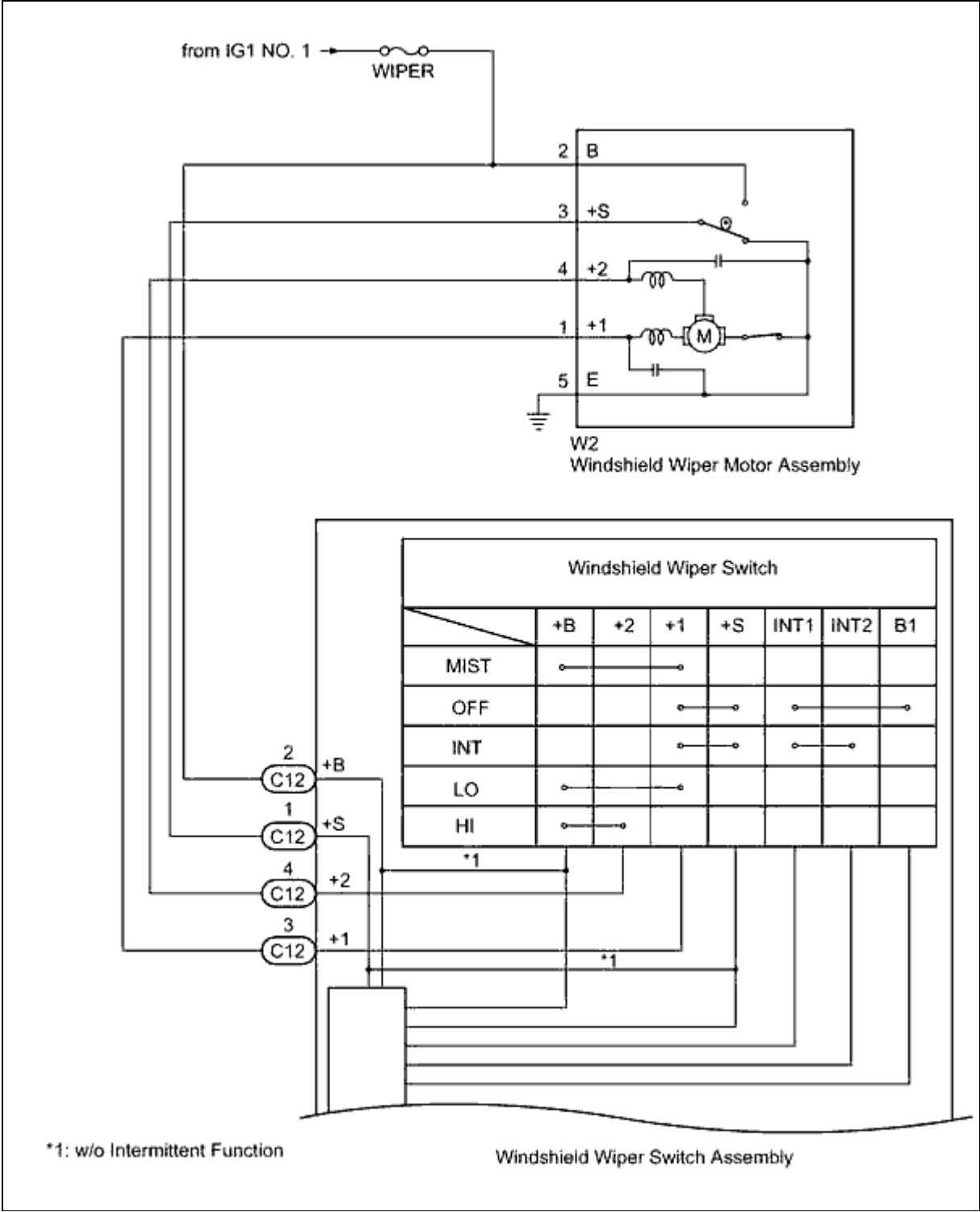
SYMPTOM	SUSPECTED AREA	LINK
Washer fluid level warning message on the multi-information display or Indicator does not operate	Level warning switch assembly	INFO
	Combination meter assembly	INFO
	Harness or connector	-

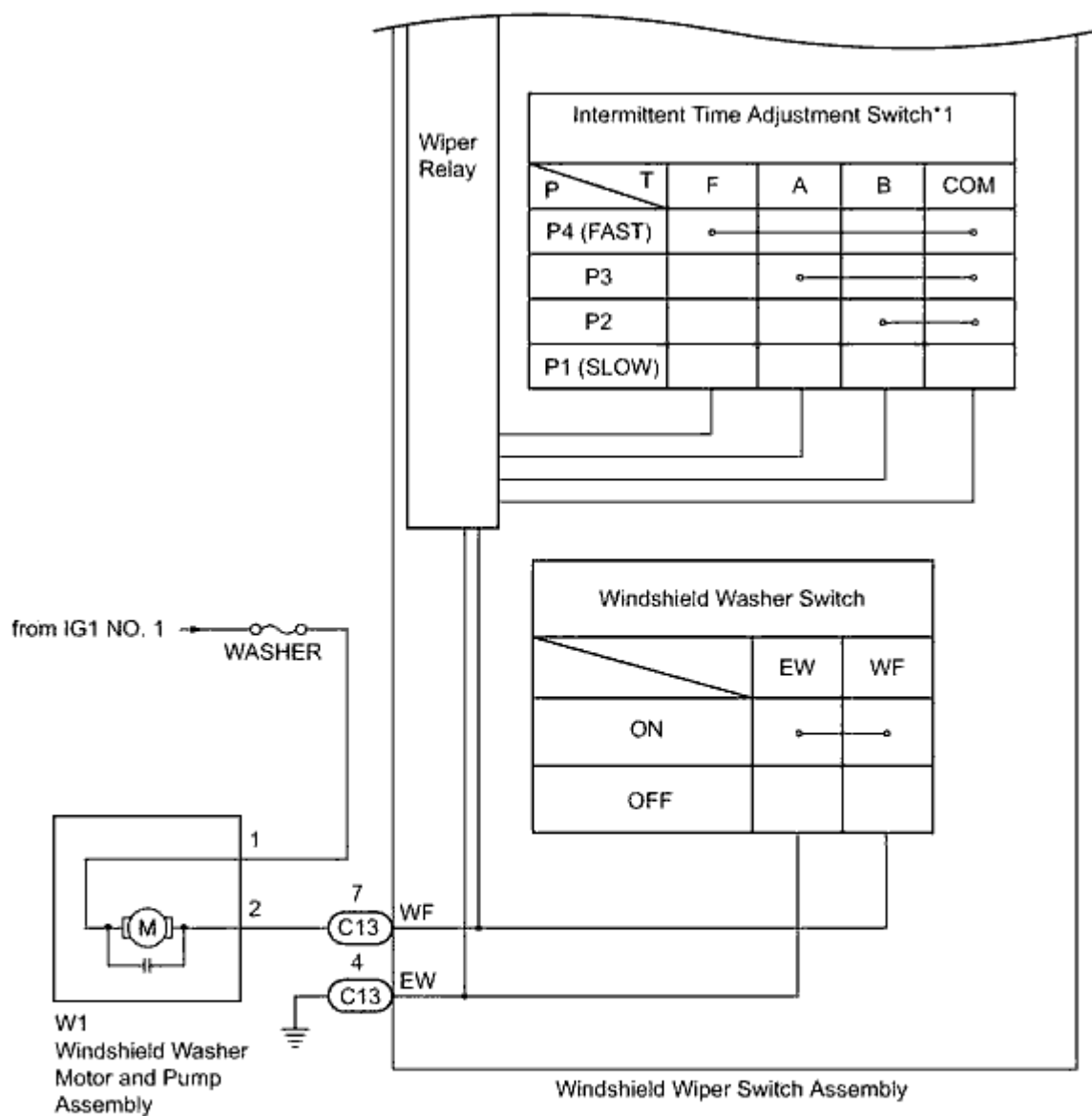


Last Modified: 11-13-2015	6.6 U	Doc ID: RM0000017CI00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER AND WASHER SYSTEM: SYSTEM DIAGRAM; 2016 MY Tacoma [08/2015 -]		

SYSTEM DIAGRAM

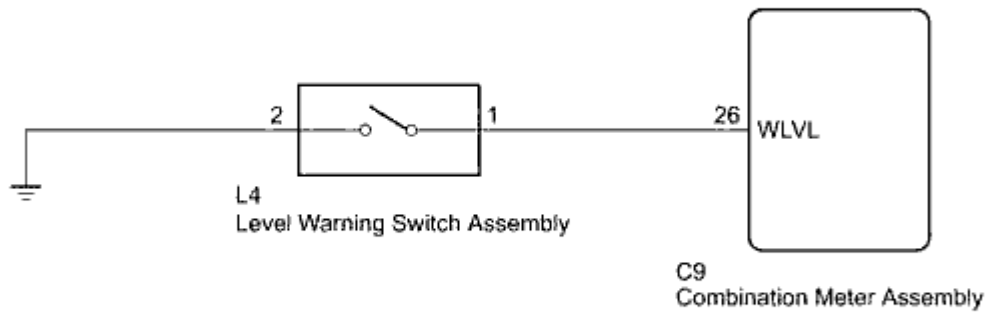
1. FRONT WIPER AND WASHER SYSTEM





*1: w/ Intermittent Function

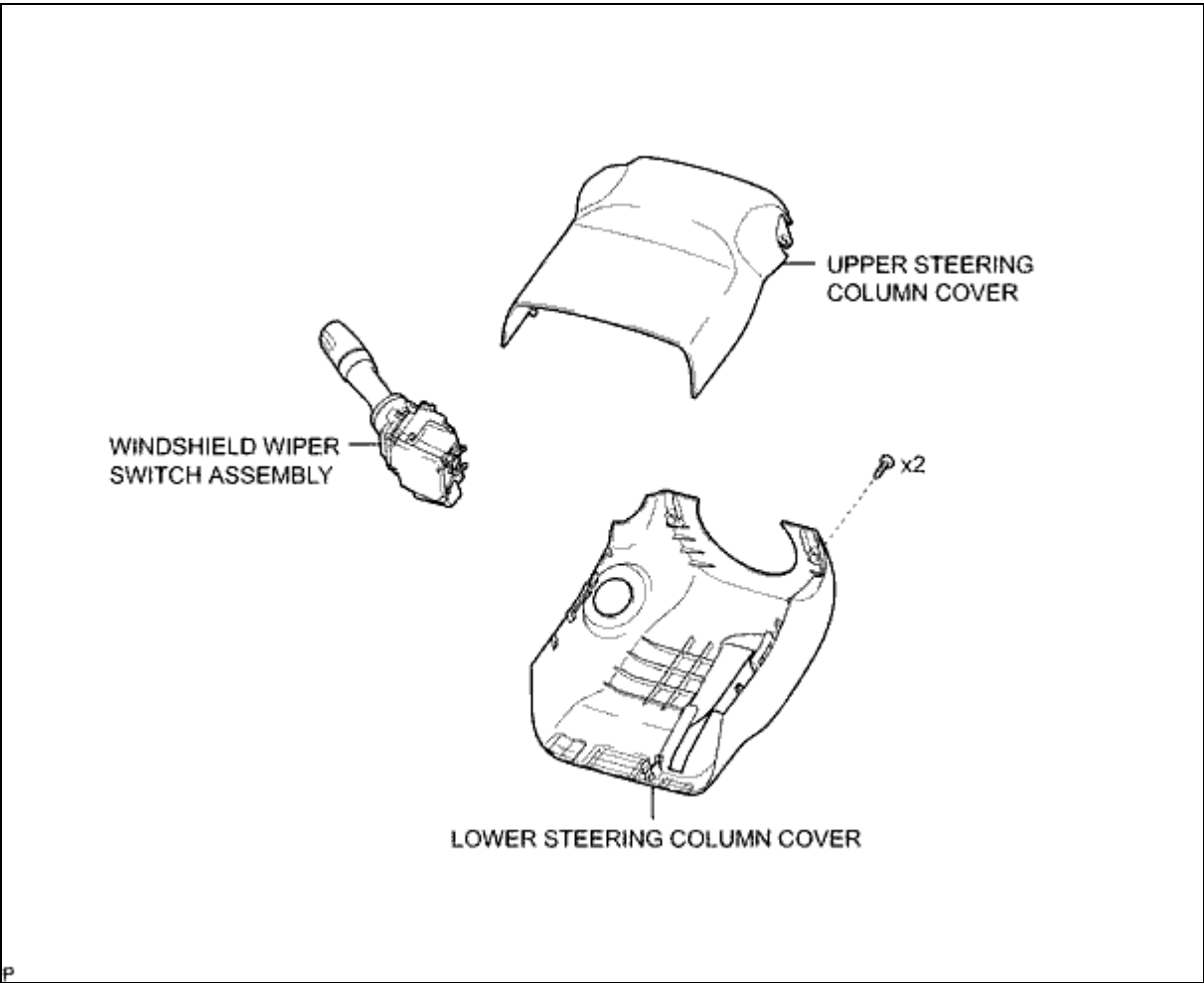
2. WASHER FLUID LEVEL WARNING SYSTEM



Last Modified: 11-13-2015	6.6 K	Doc ID: RM0000016YU00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: COMPONENTS; 2016 MY Tacoma [08/2015 -]		

COMPONENTS

ILLUSTRATION



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Last Modified: 11-13-2015	6.6 G	Doc ID: RM0000016YT00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: INSPECTION; 2016 MY Tacoma [08/2015 -]		

INSPECTION

1. INSPECT WINDSHIELD WIPER SWITCH ASSEMBLY

(a) Check the resistance.

Text in Illustration

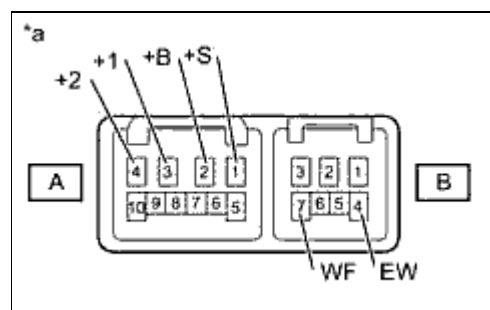
*a	Component without harness connected (Windshield Wiper Switch Assembly)
----	---

(1) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Wiper Switch

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
A-2 (+B) - A-3 (+1)	MIST	Below 1 Ω
A-1 (+S) - A-3 (+1)	OFF	
A-1 (+S) - A-3 (+1)	INTO	
A-2 (+B) - A-3 (+1)	LO	
A-2 (+B) - A-4 (+2)	HI	



Standard Resistance:

Front Washer Switch

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION
B-4 (EW) - B-7 (WF)	OFF	10 k Ω or higher
	ON	Below 1 Ω

If the result is not as specified, replace the windshield wiper switch assembly.



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016YS00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: INSTALLATION; 2016 MY Tacoma [08/2015 -]		

INSTALLATION

1. INSTALL WINDSHIELD WIPER SWITCH ASSEMBLY

- (a) Engage the claw to install the windshield wiper switch assembly.
- (b) Connect the 2 connectors.

2. INSTALL UPPER STEERING COLUMN COVER INFO

3. INSTALL LOWER STEERING COLUMN COVER INFO

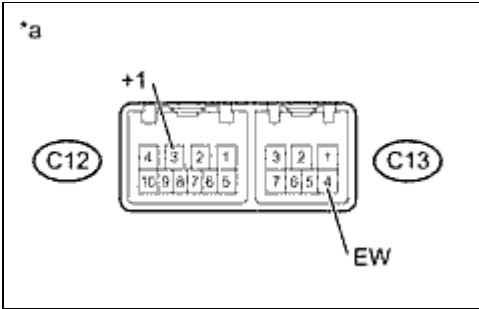


Last Modified: 11-13-2015	6.6 G	Doc ID: RM000004S4C00JX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: ON-VEHICLE INSPECTION; 2016 MY Tacoma [08/2015 -]		

ON-VEHICLE INSPECTION

1. INSPECT WINDSHIELD WIPER SWITCH ASSEMBLY (w/ Intermittent function)

- (a) Remove the steering column cover.
- (b) Check the front wiper intermittent operation.



Text in Illustration

*a	Component with harness connected (Windshield Wiper Switch Assembly)
----	--

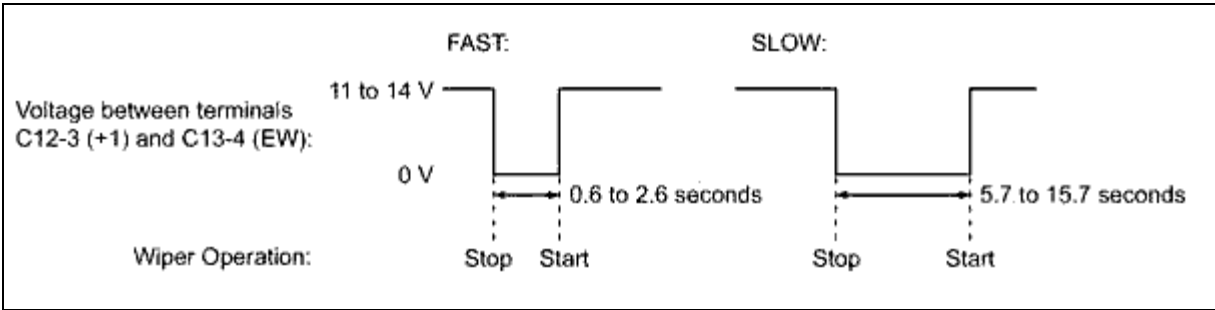
- (1) Turn the ignition switch on (IG).
- (2) Turn the wiper switch to the INT position.
- (3) Operate the intermittent wiper and check the voltage between terminals C12-3 (+1) and C13-4 (EW).

HINT:

Measure the voltage on the wire harness side with the connector connected.

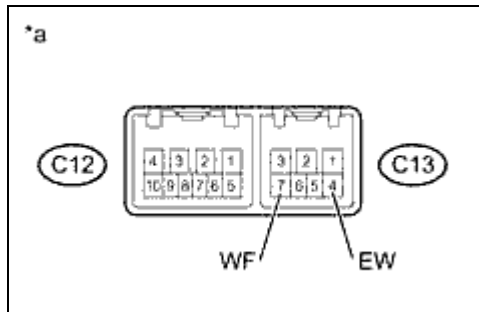
OK:

Voltage changes as shown in the illustration.



If the result is not as specified, replace the windshield wiper switch assembly.

- (c) Check the front washer operation.



Text in Illustration

*a	Component with harness connected (Windshield Wiper Switch Assembly)
----	--

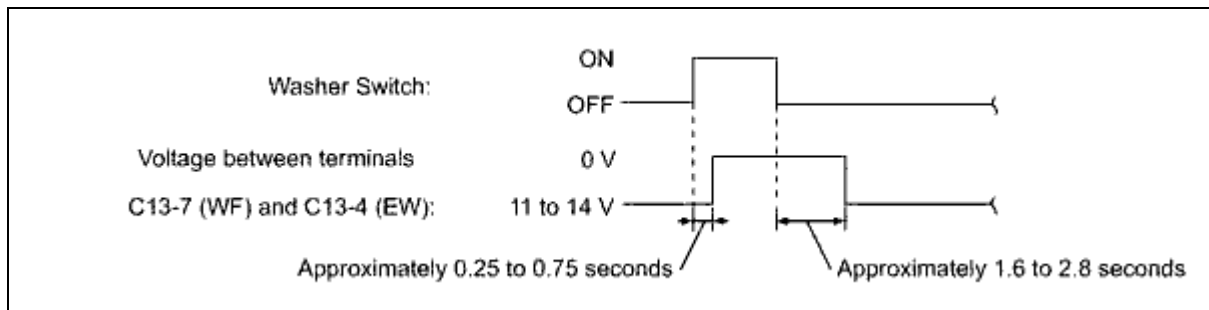
- (1) Turn the ignition switch on (IG).
- (2) Turn the washer switch on and off, and check the voltage between terminals C13-7 (WF) and C13-4 (EW).

HINT:

Measure the voltage on the wire harness side with the connector connected.

OK:

Voltage changes as shown in the illustration.



- (3) Install the steering column cover.



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Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: PRECAUTION; 2016 MY Tacoma [08/2015 -]		

PRECAUTION

1. The type of ignition switch used on this model differs depending on the specifications of the vehicle. The expressions listed in the table below are used in this section.

EXPRESSION	IGNITION SWITCH (POSITION)	ENGINE SWITCH (CONDITION)
Ignition Switch off	LOCK	Off (Lock)
Ignition Switch ACC	ACC	On (ACC)
Ignition Switch ON (IG)	ON (IG)	On (IG)
Engine Start	START	On (Start)



Last Modified: 11-13-2015	6.6 A	Doc ID: RM0000016YV00AX
Model Year Start: 2016	Model: Tacoma	Prod Date Range: [08/2015 -]
Title: WIPER AND WASHER: WIPER SWITCH: REMOVAL; 2016 MY Tacoma [08/2015 -]		

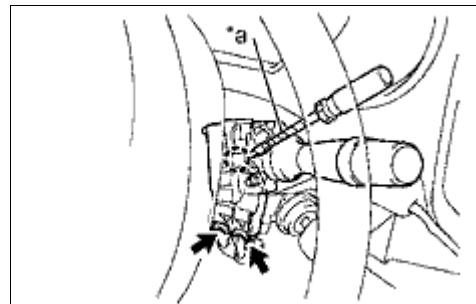
REMOVAL

1. REMOVE LOWER STEERING COLUMN COVER INFO
2. REMOVE UPPER STEERING COLUMN COVER INFO
3. REMOVE WINDSHIELD WIPER SWITCH ASSEMBLY

(a) Disconnect the 2 connectors.

Text in Illustration

*a	Protective Tape
----	-----------------



(b) Using a screwdriver with its tip wrapped in protective tape, disengage the claw to remove the windshield wiper switch assembly.

NOTICE:

If the claw is pulled with excessive force, it may break.

